

From the
INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY

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PCT

WRITTEN OPINION OF THE
INTERNATIONAL PRELIMINARY
EXAMINING AUTHORITY

(PCT Rule 66)

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International Patent Classification (IPC) or both national classification and IPC H04Q 7730		
Applicant Nokia Corporation et al		

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**WRITTEN OPINION OF THE
INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY**

International application No.

PCT/IB 2002/002459

Box No. I Basis of the opinion

1. With regard to the language, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

This opinion is based on a translation from the original language into the following language _____, which is the language of a translation furnished for the purposes of:

- international search (under Rules 12.3 and 23.1(b))
 publication of the international application (under Rule 12.4)
 international preliminary examination (under Rules 55.2 and/or 55.3)

2. With regard to the elements of the international application, this opinion has been established on the basis of (*replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this opinion as "originally filed."*):

the international application as originally filed/furnished

the description:

pages _____ as originally filed/furnished
 pages _____ received by this Authority on _____
 pages _____ received by this Authority on _____

the claims:

pages _____ as originally filed/furnished
 pages _____ as amended (together with any statement) under Article 19
 pages _____ received by this Authority on _____
 pages _____ received by this Authority on _____

the drawings:

pages _____ as originally filed/furnished
 pages _____ received by this Authority on _____
 pages _____ received by this Authority on _____

a sequence listing and/or any related table(s) – see Supplemental Box Relating to Sequence Listing.

3. The amendments have resulted in the cancellation of:

the description, pages _____
 the claims, Nos. _____
 the drawings, sheets/figs _____
 the sequence listing (*specify*): _____
 any table(s) related to the sequence listing (*specify*): _____

4. This opinion has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

the description, pages _____
 the claims, Nos. _____
 the drawings, sheets/figs _____
 the sequence listing (*specify*): _____
 any table(s) related to the sequence listing (*specify*): _____

**WRITTEN OPINION OF THE
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International application No. PCT/IB 2002/002459
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Box No. V Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims _____
	Claims _____
Inventive step (IS)	Claims _____
	Claims <u>1-49</u> _____
Industrial applicability (IA)	Claims _____
	Claims _____

2. Citations and explanations:

The claimed invention

The claimed invention relates to a method and a network system for direct routing of the user plane of a call between two network terminals attached to a first and a second network respectively. After establishing the call, the transmission path for user data is changed such that it only comprises the access networks.

The following document are cited in the International Search Report:

D1: US 2002 015 392 A1
 D2: EP 797 319 A2
 D3: EP 1 172 977 A1
 D4: WO 02 03 725 A1
 D5: EP 848 527 A1

D1 relates to a method and a system for optimal routing of calls in a base station system. By introducing a plurality of new messages on the A-interface, the BSS can be informed that the Circuit Identity Codes (CICs) included in one of these messages can be connected to the BSS to provide optimal routing of one or more calls. The system described in D1 is IP-based.

According to figure 2, the IP-based BSS can include three types of nodes connected to an IP network, an RBS, a gateway (GW) and an RNS. The RBS provides IP support for the BSS and the RNS preferably carries signalling only and thus does not include switching means.

Figure 3 shows a non-optimal routing scenario in a BSS. A call that is being conducted between two neighbouring cells is routed via the BSC and the MSC.

.../...

Supplemental Box

In case the space in any of the preceding boxes is not sufficient.

Continuation of: V (I)

According to the D1, by introducing the plurality of new messages, one being "Join CIC", a more direct connection can be made between the two BTSSs involved in the call. This is illustrated in figure 5 and described in paragraph [0031].

The difference between D1 and the claimed invention is that D1 describes the call being originated and terminated in the same core network whereas in the claimed invention, the originating and terminating terminals reside in different core networks. However, both solutions require IP-technology and the technical solution is similar i.e. to connect two IP-BTSSs directly using IP. The inventive concept of D1 and the claimed invention is the same.

It is considered to require no inventive skills to expand the method and system described in D1 to also include directly connecting two BTSSs belonging to different core networks using IP. Consequently, the claimed invention as in claim 1 is considered to lack an inventive step.

As can be seen in figure 5, the BTSSs are directly connected via IP for data/speech traffic whereas the signalling (control data) is performed on a separate transmission path. This separate (third) transmission path comprises the same networks as the first transmission path as can be seen in figure 4. Consequently, the claimed invention as in claims 2-5 is considered to lack an inventive step.

It seems apparent that before switching from the first transmission path to the second transmission path where the two BTSSs are directly connected, some sort of handshake or acknowledgement is performed and all the necessary control information is provided/transferred. Consequently, the claimed invention as in claims 6-10 and 12 is considered to lack an inventive step.

It is considered to require no inventive skills to realise that the control information may comprise information indicating which access-network element has the role of originating or terminating element. Likewise, it is also considered obvious that control information may contain transport addresses. Consequently, the claimed invention as in claims 11, 13 and 14 is considered to lack an inventive step.

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Supplemental Box

In case the space in any of the preceding boxes is not sufficient.

Continuation of: V (II)

Claims 15-17, 24 and 25 pertain to when to send control information, what the control information indicates or contains. Claims 15-17, 24 and 25 is considered to merely disclose measures obvious to a person skilled in the art, rendering the claimed invention as in claims 15-17, 24 and 25 to lack an inventive step.

D1 describes in paragraph [0032]-[0034] that under a predetermined condition (the sending and reception of the signal "Restore CIC"), the original setup is restored. Consequently, the claimed invention as in claim 18 is considered to lack an inventive step.

Of course, as for switching the transmission path from the first to the second, a respective and corresponding course of actions are taken such as sending appropriate control information containing all necessary information, handshakes and so on when the transmission path is switched back from the second path to the first path. Consequently, the claimed invention as in claims 19-23 is considered to lack an inventive step.

The system described in D1 is packet switched oriented. However, it is considered obvious that the method could easily and without inventive effort be applied to a circuit switched network or system. Consequently, the claimed invention as in claims 26 and 29 is considered to lack an inventive step.

D1 describes in paragraph [0033] that in order to reach agreement about common speech coding (and decoding), negotiations between the two MSs and the BSS have to be conducted. Consequently, the claimed invention as in claim 27 is considered to lack an inventive step.

A person skilled in the art is expected to realise that control information may be sent on any of the three transmission paths. Consequently, the claimed invention as in claims 28 and 30 is considered to lack an inventive step.

If data is sent in packets, it is natural that the control information is sent in packets and that it may be inserted in a header or extension header. Consequently, the claimed invention as in claims 31, 32, 35 and 36 is considered to lack an inventive step.

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Supplemental Box

In case the space in any of the preceding boxes is not sufficient.

Continuation of: V (III)

Claims 33 and 34 relate to transferring control information between the two access elements by forwarding the information in a data packet and that the information may be placed in the extension header. This is considered obvious to a person skilled in the art. Consequently, the claimed invention as in claims 33 and 34 is considered to lack an inventive step.

As stated earlier above, D1 describes in paragraph [0032]-[0034] that the direct transmission can be redirected. Claims 37-44 all pertain to measures considered obvious to a person skilled in the art with the argumentation as for when switching from the first transmission path to the second. Hence the claimed invention as in claims 37-44 is considered to lack an inventive step.

Claims 45-48 relate to a network element adapted to implement the method and claim 49 relates to a system comprising such an element. As the method is considered to be obvious to a person skilled in the art having knowledge of D1, so is a network element implementing the method and a system comprising such an element. Consequently, the claimed invention as in claims 45-49 is considered to lack an inventive step.

D2-D5 merely relates to the state of the art and are not commented on further.

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Box No. VIII Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

Claim 1 does not meet the requirements of Article 6 PCT in that the matter for which protection is sought is not clearly defined. The following functional statements do not enable the skilled person to determine which technical features are necessary to perform the stated function: "switching from said first transmission path to a second transmission path for said user data, said second transmission path comprising direct connection between said first access network and said second access network."

The claim does not describe how this is done. If the two access networks belong to e.g. two different GSM networks without any IP-BTSs, it is not obvious how two BTSs of different core networks can be directly connected.